

DRAFT  
At-Berth Ocean-Going Vessels Regulation

8/28/07

(a) Purpose

The purpose of this regulation is to reduce oxides of nitrogen (NO<sub>x</sub>) and diesel particulate matter (PM) emissions from the operation of auxiliary engines on container ships, passenger ships, and refrigerated cargo ships when these vessels are tied to a berth at a California port.

b) Applicability

- (1) Except as provided below, this section applies to any person who owns, operates, charters, rents, or leases any container ship, passenger ship, or refrigerated cargo ship that visits a California port. In addition, this section also applies to any person who owns or operates a port or terminal located at a port where container, passenger, or refrigerated cargo vessels visit.

- (2) Exemptions

The requirements of this section do not apply to:

- (A) Auxiliary engines on board ocean-going vessels owned or operated by any branch of local, state, or federal government, or by a foreign government.
- (B) Steamships that visit California ports.

c) Definitions

- (1) “Alternative Control Technologies” refers to technologies that reduce the emissions of NO<sub>x</sub> and PM.
- (2) “Auxiliary Engine” means an engine on a vessel designed primarily to provide power for uses other than propulsion, except that all diesel-electric engines shall be considered “auxiliary diesel engines” for purposes of this regulation.
- (3) “Baseline Fleet Emissions” refers to the total emissions from all vessels in the fleet when the vessels are docked at the berth. The auxiliary engines on the vessels are assumed to use marine diesel fuel.

- (4) "Berthing Times" refers to the time period when the vessel is first tied to the berth and when the vessel is untied from the berth.
- (5) "California Ports" refers to
  - (A) The Port of Hueneme, the Port of Los Angeles (POLA) and Port of Long Beach (POLB), the Port of Oakland, the Port of San Diego, and the Port of San Francisco.
  - (B) For the purposes of this section, POLA and POLB are treated as one port.
- (6) "Container Vessel" means a self-propelled vessel constructed or adapted primarily to carry uniform-sized ocean freight containers.
- (7) "Diesel-Electric Engine" means a diesel engine connected to a generator that is used as a source of electricity for propulsion or other uses.
- (8) "Diesel Particulate Matter" means the particles found in the exhaust of diesel engines, which may agglomerate and adsorb other species to form structures of complex physical and chemical properties.
- (9) "Docked at the Berth" refers to a vessel that is tied up at a berth.
- (10) "Emergency Event" refers to the follow events:
  - (A) Any situation arising from a sudden and reasonably unforeseen event beyond the control of the master that threatens the safety of the vessel;
  - (B) The utility serving the port indicates that electrical power will be temporarily unavailable as a result of equipment failure;
  - (C) The electrical system at the terminal cannot provide electrical power as a result of equipment failure; or
- (11) "Executive Officer" refers to the executive officer of the Air Resources Board (ARB), or his or her designee.
- (12) "Fleet" refers to vessels visiting California ports owned and/or operated under the direct control of a person or company. Direct control includes, but is not limited to, vessels that are operated under a contract, lease, or other arrangement with a third-party for the third-

part to operate the vessel. No vessel shall be included in more than one fleet.

- (13) "IMO" means the International Maritime Organization.
- (14) "Master" means the person who operates a vessel or is otherwise in charge of the vessel's operations.
- (15) "Ocean-Going Vessel" means a commercial, government, or military vessel meeting any one of the following criteria:
  - (A) A vessel with a "registry" (foreign trade) endorsement on its United States Coast Guard certificate of documentation, or a vessel that is registered under the flag of a country other than the United States;
  - (B) A vessel greater than or equal to 400 feet in length overall (LOA) as defined in 50 CFR § 679.2, as adopted June 19, 1996;
  - (C) A vessel greater than or equal to 10,000 gross tons (GT ITC) pursuant to the convention measurement (international system) as defined in 46 CFR § 69.51-.61, as adopted September 12, 1989; or
  - (D) A vessel propelled by a marine compression ignition engine with a per-cylinder displacement of greater than or equal to 30 liters.

For the purposes of this section, ocean-going vessel will be referred to as "vessel."

- (16) "Operate" means steering or otherwise running the vessel or its functions while the vessel is underway, moored, anchored, or at dock.
- (17) "Own" means having all the incidents of ownership, including the legal title, of a vessel whether or not that person leads, rents, or pledges the vessel; having or being entitled to the possession of a vessel as the purchaser under a conditional sale contract; or being the mortgagor of a vessel.
- (18) "Owner/Operator" means a person or company that has direct control over a vessel's operation whether or not they actually own the vessel. If such an owner/operator does not actually own the vessel, they are commonly referred to as a "disponent owner," or "owner pro hac vice" (owner for this particular occasion).

- (19) "Oxides of Nitrogen" means compounds of nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>), and other oxides of nitrogen, which are typically created during combustion processes and are major contributors to smog formation and acid deposition.
- (20) "Particulate Matter" means any airborne finely divided material, except uncombined water, which exists as a liquid or solid at standard conditions (e.g., dust, smoke, mist, fumes, or smog).
- (21) "Passenger Vessel" means a self-propelled vessel constructed or adapted primarily to carry people.
- (22) "Person" includes all of the following:
- (A) Any person, firm, association, organization, partnership, business trust, corporation, limited liability company, or company;
  - (B) Any state or local governmental agency or public district, or any officer or employee thereof;
  - (C) The United States or its agencies, to the extent authorized by federal law.
- (23) "Post-Baseline Fleet Emissions" refers to the total emissions from all vessels in the fleet when the vessels are docked at the berth after the application of alternative control technologies. The auxiliary engines on the vessels are assumed to use marine diesel fuel.
- (24) "Refrigerated Cargo (or Reefer) Vessel" means a self-propelled vessel constructed or adapted primarily to carry refrigerated cargo. Reefer vessels include vessels where the cargo may be stored in large refrigerated rooms within the vessel or vessels that carry exclusively refrigerated cargo containers.
- (25) "Responsible Official" refers to an individual employed by the company with the authority to certify that all vessels in a fleet comply with applicable requirements of this regulation.
- (26) "Shore power" refers to electrical power being provided by either the local utility or by distributed generation.
- (27) "Steamship" means a self-propelled vessel where the primary propulsion and electrical power are provided by steam boilers.

- (28) "Terminal" means a facility consisting of wharves, piers, docks and other berthing locations and adjacent storage of which the main purpose is the loading and unloading of cargo or material from vessels.
- (29) "Terminal Operator" refers to the company that leases the property from the port.
- (30) "TEU" means "twenty-foot equivalent unit," which is the standard for measuring containerized cargo.
- (31) "TEU capacity" refers to the number of TEUs that a vessel can carry, as listed in Lloyd's Register of Ships.
- (32) "Utility" refers to companies and municipal organizations that provide electrical power.
- (33) "Verified Emission Control Strategy" refers to an emission control strategy designed primarily for the reduction of diesel PM emissions that has been verified pursuant to the "Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines" in Title 13, California Code of Regulations, commencing with section 2700, and incorporated by reference.
- (34) "Visit" refers to the time period where a vessel initially ties to a berth (the beginning of the visit) and subsequently cast off the lines (the end of the visit) at a California port. Visits where a vessel ties to two or more berths at the same port, and the time interval between leaving one berth and tying to another berth is less than two hours is considered a single visit to a California port.

(d) Requirements

(1) Vessel Requirements

(A) Limited Auxiliary Engine Operation

1. Container and passenger vessel fleets

- a. Except as provided in (d)(1)(B), beginning January 1, 2014, for 50 percent or more of the fleet's total visits to each California port, the auxiliary diesel engines of the vessel shall not operate for more than three hours per visit while tied up to a berth.

- b. Except as provided in (d)(1)(B), beginning January 1, 2020, for 80 percent or more of the fleet's total visits to each California port, the auxiliary diesel engines of the vessel shall not operate for more than three hours per visit while tied up to a berth.
- c. The requirements of (d)(1)(A)1.a and (d)(1)(A)1.b shall be satisfied on a quarterly basis, as given below:
  - i. January 1 to March 31
  - ii. April 1 to June 30
  - iii. July 1 to September 30
  - iv. October 1 to December 31

## 2. Reefer vessels

- a. Except as provided in (d)(1)(B), beginning January 1, 2014, for refrigerated cargo vessels ("reefers") that make more than 10 visits to a California port in a calendar year, the auxiliary diesel engines of the vessels shall not operate for more than three hours per visit while tied up to a berth.

The vessel visitation activity occurring from January 1, 2011, to December 31, 2013, will determine the vessels subject to this requirement.

- b. Except as provided in (d)(1)(B), beginning January 1, 2020, for refrigerated cargo vessels ("reefers") that make more than five visits to a California port in a calendar year and average 40 hours or more per visit on an annual basis, the auxiliary diesel engines of the vessels shall not operate for more than three hours per visit while tied up to a berth.

The vessel visitation activity occurring from January 1, 2017, to December 31, 2018, will determine the vessels subject to this requirement.

3. Electrical power provided in lieu of the on-board generators shall be supplied by the local utility or meet the following emission standards:
  - a. NOx emissions no greater than 0.07 lb/MW-Hr
  - b. PM emissions equivalent to the combustion of natural gas with a fuel sulfur content of no more than 1 grain/100 standard cubic foot
4. Notwithstanding the requirements of (d)(1)(A)1 and (d)(1)(A)2, any vessel equipped to receive shore power that visits a berth capable of providing compatible shore power shall utilize the shore power during every visit.

(B) Emissions Reduction Option

The purpose of this section is to allow any person the option of complying with the requirements of this subsection, (d)(1)(B), in lieu of the requirements of subsection (d)(1)(A).

Requirements

1. By January 1, 2014, the NOx and PM emissions for the fleet's auxiliary engines must be reduced by 50 percent from the baseline fleet emissions.
2. By January 1, 2020, the NOx and PM emissions for the fleet's auxiliary engines must be reduced by 80 percent from the baseline fleet emissions.
3. The requirements of (d)(1)(B)1 and (d)(1)(B)2 shall be satisfied on a quarterly basis, as given below:
  - a. January 1 to March 31
  - b. April 1 to June 30
  - c. July 1 to September 30
  - d. October 1 to December 31
4. Sources of electrical power used to satisfy (d)(1)(B)1 and (d)(1)(B)2 shall not exceed the following emission standards:

- a. NO<sub>x</sub> emissions no greater than 0.5 lb/MW-Hr
- b. PM emissions no greater than 0.06 lb/MW-Hr

(2) Terminal Requirements

- (A) Except as provided in (d)(2)(B), the terminal operator shall provide the necessary electrical infrastructure to accommodate the vessels subject to (d)(1)(A)1.a, (d)(1)(A)1.b, (d)(1)(A)2.a, and (d)(1)(A)2.b.
- (B) With the approval of the Executive Officer, the terminal operator can use alternative control technologies to achieve the same reduction achieved by satisfying (d)(2)(A).
- (C) By January 1, 2010, a terminal that receives more than 50 vessel visits in 2008 shall submit a plan for the Executive Officer's approval that discusses how the terminal will satisfy the requirements in (d)(2)(A), and (d)(2)(B). The terminal shall submit plan updates to the Executive Officer by January 1, 2013, and January 1, 2019.

(e) Exemptions to the Three-Hour Limited Auxiliary Engine Operation Requirement

(1) Emergency Event

- (A) If the master of the vessel determines that an emergency event occurs during the vessel's visit to a California port, the master of the vessel may operate the vessel's auxiliary engines during the emergency event.
- (B) When the master is informed or determines that the emergency event no longer exists, the master shall not operate the vessel's auxiliary engines for more than one hour after such notification or determination.
- (C) If the master receives notification or determines that the emergency event no longer exists and the vessel is scheduled to leave port within five hours, the auxiliary engines can continue to be operated.



(2) Federal Requirements

The three-hour requirement may be extended if:

- (A) The initial inspection and clearance of the vessel by the Department of Homeland Security exceeds one hour. The time extension granted shall be commensurate with the excess time necessary for inspection and clearance.
- (B) After the auxiliary engines have been put back into service pending departure from the berth, the scheduled departure of the vessel has been delayed by the U.S. Coast Guard or the Department of Homeland Security.

(f) Calculations for Emissions Reduction Option

- (1) For the purposes of (d)(1)(B)(1) and (d)(1)(B)(2), the percent emission reduction is based upon the following:

$$\text{Percent Reduction} = (\text{Baseline Fleet} - \text{Post-Baseline Fleet}) / \text{Baseline Fleet}$$

The baseline fleet and post-baseline fleet emissions are calculated as follows:

(A) Baseline fleet emissions

The baseline fleet emissions of NO<sub>x</sub> and PM shall be calculated with the following formula:

$$\text{Baseline Fleet Emissions} = \sum (\text{emission rate} \times \text{average berthing time} \times \text{power requirement} \times \text{visits})$$

Where: **Emission rate** pursuant to (f)(2)

**Average berthing time** for each vessel for the calendar year in question

**Power requirements** refers to electrical power requirement for each ship pursuant to (f)(3)

**Visits** made by the vessel for the calendar year in question

(B) Post-baseline fleet emissions

The post-baseline fleet emissions of NO<sub>x</sub> and PM shall be calculated with the following formula:

Post-Baseline Fleet Emissions =  $\sum$  (emission rate x average berthing time x power requirement x visits x control factor)

Where: **Emission rate** pursuant to (f)(2)

**Average berthing time** for each vessel for the calendar year in question

**Power requirements** refers to electrical power requirement for each ship pursuant to (f)(3)

**Visits** made by the vessel for the calendar year in question

**Control factors** pursuant to (f)(4)

(2) The following emissions rates shall be used for (f)(1)(A) and (f)(1)(B):

- (A) Results from emission measurements used to satisfy a marine engine standard, including US EPA emission standards for marine engines, and MARPOL 73/78;
- (B) Emission measures approved by the Executive Officer and using the test methods in (f)(4)(B)(3)
- (C) In lieu of approved test data for a marine engine, the following emission rates can be used as default values:
  - 1. 13.9 g/kW-hr for NO<sub>x</sub>.
  - 2. 0.38 g/kW-hr for PM if 0.11 to 0.5 percent sulfur marine gas oil is used as a fuel.
  - 3. 0.25 g/kW-hr for PM if 0.10 or less sulfur content marine gas oil is used as a fuel.

### (3) Power Requirements

(A) The following values can be used as default values:

Ship Category	Ship Size / Type	Default Power Requirement (kW)
Container Vessel	<1000 TEU	1,000
	1,000-1,999 TEU	1,300
	2,000-2,999 TEU	1,600
	3,000-3,999 TEU	1,900
	4,000-4,999 TEU	2,200
	5,000-5,999 TEU	2,300
	6,000-6,999 TEU	2,500
	7,000-7,999 TEU	2,900
	8,000-9,999 TEU	3,300
	10,000-12,000 TEU	3,700
Passenger Vessel	Standard	7,000
	Large	12,000
Reefer	Break bulk	1,300
	Fully containerized	2,200

(B) In lieu of the default values, the fleet operator can provide:

1. The actual shore power usage, on a monthly basis, of the vessels in the fleet utilizing shore power, or
2. The actual on-board power usage, on a monthly basis, of the vessels in the fleet utilizing alternative technologies

### (4) Control Factors

(A) The emissions from vessels using grid power in lieu of the vessel's auxiliary engines when the vessels are at berth are assumed to be reduced by 90 percent.

(B) Control efficiencies of alternative technologies shall be determined as follows:

1. An emission test protocol must be approved by the Executive Officer prior to conducting the emission measurements; and
2. The Executive Officer must approve the results of the emission measurements.

3. Emission measurements must be conducted with the following test methods:
  - a. NO<sub>x</sub> shall be measured with California Air Resources Board (CARB) Test Method 100, dated July 1997, or equivalent district-approved test method;
  - b. Diesel PM shall be measured with ISO 8178 Test Procedures: ISO 8178-1: 1996(E) ("ISO 8178 Part 1"); ISO 8178-2:1996(E) ("ISO 8178 Part 2"); and ISO 8178-4: 1996(E) ("ISO 8178 Part 4 "); and
  - c. Ammonia slip shall be measured with the Bay Area Air Quality Management District Source Test Procedure ST-1B, Ammonia Integrated Sampling, dated January 1982, or other equivalent district approved test method.
- (C) Results from emission measurements from a verified emission control strategy may be used in conjunction with engine emission information.
- (D) The Executive Officer may request periodic emission testing or other types of monitoring to verify the proper operation of alternative control technologies or to verify the emission rate of an auxiliary engine.
  1. At a minimum, the following test intervals must be satisfied:
    - a. Shore-based systems using catalyst based air pollution control systems shall be tested annually to demonstrate the overall percentage of emission reduction being achieved.
    - b. Catalyst based air pollution control systems installed on vessels shall be tested after every 1,000 hours of operation to determine the overall percentage of emission reduction being achieved.
    - c. If Selective Catalytic Reduction (SCR) is used as a control technology, the emissions of ammonia shall also be measured at the same time the NO<sub>x</sub> emission reduction is being measured.

2. The Executive Officer can modify the testing frequency as appropriate.
- (E) The following incentive may be used to revise the fleet's overall emissions reductions:
1. For the purpose of satisfying (d)(1)(B)(1), and with the approval of the Executive Officer, emission reductions achieved prior to January 1, 2012, shall be considered early emission reductions and may be counted at \_\_\_\_ times the actual emissions reductions. This credit shall expire on January 1, 2017.
  2. Applications for early emission reduction credit shall be submitted to the Executive Officer by January 1, 2011, and must be approved by the Executive Officer prior to January 1, 2012. The application shall contain, at a minimum, the following information:
    - a. Description of the proposal, including the location of the project (identify the port and terminal), technique(s) used to reduce NOx and/or PM emissions, discussion on the permanence of the proposed reductions, and a list of the vessel(s) affected by the project;
    - b. Estimate of reductions over a five-year period and supporting engineering calculations quantifying the early emission reductions; and
    - c. Documentation supporting the emission reductions proposed by the project, including emission testing;
  3. The Executive Officer shall approve early emission reduction that satisfy all of the following:
    - a. The project must generate emission reductions for five consecutive years at California ports. The early emission reduction credit shall be based on the lowest amount of emission reduction, on an annual basis, expected to be generated over this time period.
    - b. The project must be undertaken by the company under a voluntary basis. Projects that were implemented as a result of complying with existing or future regulatory

requirements or litigation are not eligible for early emissions reduction.

- c. The proposed project's reductions were not banked as an emission reduction credit or a mobile emissions reduction credit with a local air district.

- 4. After the early reduction credit has been granted, the Executive Officer can reduce the amount of the early emission reduction credit or eliminate the credit if an annual statement of compliance, filed pursuant to (h)(2)(A)2, indicates that the early emission reduction is less than originally approved or the reduction no longer exists.

(g) Terminal Plan Requirements

(1) Shore power applications

- (A) Schedule for implementing infrastructure modifications;
- (B) Identification of existing berths to be modified or new berths to be constructed that will satisfy the requirements of (d)(1) (A).

(2) Non-shore power applications

- (A) Description of the approach that will be used to reduce in-berth vessel emissions, including whether the approach is a vessel-based approach or shore-based approach;
- (B) Identification and description of equipment;
- (C) Berth(s) where the equipment will be used;
- (D) Specific vessels affected by the technology; and
- (E) Estimate of the expected reductions in NO<sub>x</sub> and PM emissions from vessels using the technology, including documentation supporting the anticipated reductions.

- (3) A port may submit terminal plans required by (g)(1) and (g)(2) on behalf of the terminals located at that port.

(h) Reporting and Recordkeeping Requirements

(1) Operator of Vessels Subject to the Limited Auxiliary Engine Operation

(A) The Responsible Official shall provide the following reports to the Executive Officer:

1. A status report, due to the Executive Officer by March 1, 2013, and March 1, 2019, which includes a listing of the vessels that would be affected by the requirements of (d)(1)(A) and the ability of each vessel to use shore power.

The report should list of vessels that are able to shut down the vessel's auxiliary engines and use shore power. The list should have the following information:

- a. Name of the vessel, Lloyd's number for the vessel, and vessel category (container, passenger, or reefer); and
  - b. The port(s) each vessel(s) is expected to visit.
2. An annual statement of compliance
    - a. The initial annual statement of compliance is due to the Executive Officer by March 1, 2015. This statement is for the 2014 calendar year. Thereafter, the annual compliance statement is due to the Executive Officer by March 1 of each year, certifying compliance with the requirements for the previous calendar year.
    - b. The annual statement of compliance shall include the following:
      - i. A statement signed by the Responsible Official that the requirements of (d)(1)(A)1 or (d)(1)(A)2 are satisfied.
      - ii. A list of vessels that did not operate their auxiliary engines while at a California port. The list shall include the following information:
        1. Current name of the vessel;
        2. Lloyd's number for the vessel;
        3. Vessel type;

4. Number of visits to each California port where the auxiliary engines were shut down and identify the terminal(s) visited;
- iii. Total visits, by vessels that did not operate its auxiliary engines during a visit to a California port, to each terminal on an annual basis divided into the following periods:
  1. January 1 to March 31
  2. April 1 to June 30
  3. July 1 to September 30
  4. October 1 to December 31

(B) Recordkeeping

1. The following records shall be kept at a central location by the vessel operator. This information shall be supplied to the Executive Officer within 30 days of a request from ARB staff.
  - a. A logbook that records the following dates, times, and comments for each visit:
    - i. When the vessel initially tied to the berth and when the vessel cast-off the tie lines;
    - ii. When the Department of Homeland Security released the vessel;
    - iii. When the auxiliary engines were initially shut down and subsequently restarted;
    - iv. If departure from the berth was delayed by the U.S. Coast Guard or other federal agency; and
    - v. If an emergency event occurred, and a detailed description of that emergency event.
  - b. Copies of United States Customs form 1300.
2. Records shall be kept for five years.



- (2) Reporting and Recordkeeping Requirements for Operators Opting to Comply with the Emissions Reduction Option
- (A) The Responsible Official shall provide the following reports to the Executive Officer:
1. A status report, due to the Executive Officer by March 1, 2013, that includes the following items:
    - a. List of the vessels included in the company's fleet; Lloyd's number for each vessel, vessel category, average number of reefer containers carried by the vessel over the calendar year (container vessels only), and power requirement (passenger and reefer vessels); and
    - b. Identify the potential alternative control techniques that may be used to achieve the requirements of (d)(1)(B). For each control technique, specify the following:
      - i. Identifying which vessels would be affected by the technique;
      - ii. Status of implementation of the alternative control technique; and
      - iii. Basis of expected reduction, including submitting any emission testing or other documentation
  2. An annual statement of compliance
    - a. The initial annual statement of compliance is due to the Executive Officer by March 1, 2015. This statement is for the 2014 calendar year. Thereafter, the annual compliance statement is due to the Executive Officer by March 1 of each year, certifying compliance with the requirements for the previous calendar year.
    - b. The following items, applicable to the calendar year in question, should be included with the statement of compliance:
      - i. A statement signed by the Responsible Official indicating that the NO<sub>x</sub> and PM emission reductions specified by (d)(1)(B) have been achieved;

- ii. A list of vessels in the fleet with the following information for each vessel:
  - 1. Current name of the vessel;
  - 2. Lloyd's number for each vessel;
  - 3. Emission rate used for the auxiliary engine;
  - 4. Average hours the vessel was hotelling;
  - 5. Average number of reefer containers carried by the vessel over the calendar year (container vessels only);
  - 6. Power requirements of the vessel (passenger and reefer vessels);
  - 7. Number of visits to each California port; and
  - 8. If applicable, alternative control technique(s) implemented to reduce NO<sub>x</sub> and PM emissions and the percent control achieved.
- iii. Description of the alternative controls technology (or technologies) used, achievable emission reduction, and supporting documentation (e.g., source test results or verification documentation). For subsequent statements of compliance, the supporting documents can be referenced.
- iv. If early reduction credits were claimed, a discussion of how reductions were generated, including identifying the technique used to reduce emissions and to which vessels the technique was applied. Documentation verifying reductions, including emission testing or monitoring used, shall be included.

(B) Recordkeeping

- 1. The following records shall be kept at a central location by the master and the fleet vessel operator. This information shall be supplied to the Executive Officer within 30 days of a request from ARB staff.

For each calendar year of vessel activity, a quarterly summary of emissions that demonstrates compliance with the applicable emission reduction (2014 or 2020), which includes the following:

- a. The fleet's baseline and post-baseline levels for NO<sub>x</sub> and PM emissions; and

- b. Each vessel's contribution to fleet's baseline and post-baseline NOx and PM emissions, including the following information:
  - i. NOx and PM emissions for each vessel;
  - ii. Average hotelling time for each vessel;
  - iii. Power requirements for each vessel while at berth;
  - iv. For container vessels, the number of reefer containers imported and exported for each container vessel;
  - v. Total visits to each California port made by the vessel; and
  - vi. Technology used to reduce emissions and associated control factor used.

2. Records shall be kept for five years.

(3) Reporting and Recordkeeping Requirements for Terminals

(A) Annual statement of compliance

- 1. The initial annual statement of compliance is due to the Executive Officer by March 1, 2015. This statement is for the 2014 calendar year. Thereafter, the annual compliance statement is due to the Executive Officer by March 1 of each year certifying compliance with the requirements for the previous calendar year;
- 2. The annual statement of compliance shall include the following:
  - a. A statement signed by the Responsible Official that the requirements of (d)(2) are satisfied;
  - b. The total vessel visits at the terminal; and
  - c. A list of each vessel that visited the terminal and the total visits made by each vessel to each California port where the auxiliary engines of the vessels satisfied the requirements of (d)(1)

(B) Recordkeeping Requirements

1. The terminal operator shall keep the following records:
  - a. Date, time, and description of equipment failure that affected the ability of vessels to turn off their auxiliary engines
  - b. Record of each vessel that did not operate its auxiliary engines while the vessel was docked at the terminal
    - i. Name of vessel
    - ii. Date and time each vessel was initially tied to the terminal
2. Records shall be kept for five years

(C) A port may submit the status reports and the statements of compliance required by (h)(3)(A) and (h)(3)(B) on behalf of the terminals located at that port.

(D) Affected ports shall provide wharfinger information to the Executive Officer annually, beginning with the wharfinger information for the calendar year 2013.

1. This information shall be provided to the Executive Officer no later than April 1 of the following year.
2. At a minimum, the wharfinger information shall include for each vessel visiting the port:
  - a. Name of the vessel;
  - b. Vessel type;
  - c. Company operating the vessel;
  - d. Lloyd's number for each vessel;
  - e. Berth used by the vessel, and
  - f. Date(s) and time the vessel was initially tied to the berth and subsequently released from the berth.

(4) Utility Reporting Requirements

The utility shall provide to the Executive Officer the following information, by March 1, 2016 for power usage for the calendar year 2015. Thereafter, the report is due to the Executive Officer by March 1 of each year, representing responses to activities occurring in the previous calendar year.

- (A) The annual power usage, on a month-by-month basis, for each terminal equipped with shore power.
  - (B) All periods when electrical power was not provided to the port, including the date and time period for each incident, and the cause of the electrical power outage.
- (5) All reporting and recordkeeping requirements in this section can be submitted to the Executive Officer in an electronic format.